

# SEQUENCE LISTING

<110> Ming-Hui WEI

<120> ISOLATED HUMAN KINASE PROTEINS, NUCLEIC  
ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES  
THEREOF

<130> CL001305 DIV-II

<140> To be assigned

<141> 2003-10-09

<150> 10/277,032

<151> 2002-10-22

<150> 09/984,880

<151> 2001-10-31

<160> 4

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 2571

<212> DNA

<213> Homo sapiens

<400> 1

cggggcccag	ggcggcgctcg	ctgaggcgcc	catggccttc	gcccgcgcgg	tccctgcgcgg	60
gccactgtcg	gggcccgtgc	tcgggcccgc	cggggtctgc	gctggggcca	tggtcccgc	120
gtgccgcttc	gtcctggagc	ttcccgaactg	caccctggct	cacttcgccc	taggcgccga	180
cgccccggc	gacgcagacg	cccccgacc	ccgcctggcg	gcgctgttg	ggccccgga	240
gcgcagctac	tcgctgtgcg	tgcccgtgac	cccgacgcc	ggctgcggg	cccgggtccg	300
ggcggcgcg	ctgcaccagc	gcctgctgca	ccagctgcgc	cgcgccccct	tccagcggtg	360
ccagctgtc	aggctgtct	gctactgccc	ggcgggccag	gccggcgcg	cacagcaagg	420
cttccctgctg	cgcgaccccc	tggatgaccc	tgacaccccg	caagcgctgc	tcgagctgct	480
ggcgccctgc	caggaggcac	cacgcccgc	cttggggcag	ttcgaggccg	acccgcgcgg	540
ccagctgtg	cagcgccct	gggagggtga	agacggcagg	cggtgcagg	tggtgtgcgc	600
acaggctcgtg	cccgccccg	agcccccgct	gcacccggtg	gtgccagact	tgcccagttc	660
cgtggtcttc	ccggaccggg	aagccgcccc	ggccgttttg	gaggagtgt	cctcctttat	720
tcctgaagcc	cgggcagtc	ttgacctggt	cgaccagtgc	ccaaaacaga	tccagaaagg	780
aaagtctccag	gttggttgcca	tcgaaggact	ggatgccacg	ggtaaaacca	cggtgacca	840
gtcagtggca	gattcactta	aggctgtcct	cttaaagtca	ccaccctctt	gcattggcca	900
gtggaggaag	atctttgatg	atgaaccaac	tatcattaga	agagcttttt	actctttggg	960
caattatatt	gtggcctccg	aaatagctaa	agaatctgcc	aaatctcctg	tgattgtaga	1020
cagggtactgg	cacagcacgg	ccacctatgc	catagccact	gagggtagtg	gggggtctcca	1080
gcacctgccc	ccagcccac	accctgtgta	ccagtggcca	gaggacctgc	tcaaacctga	1140
ccttatccctg	ctgctcactg	tgagtcctga	ggagagggtg	cagaggctgc	agggccgggg	1200
catggagaag	accaggaag	aagcagaact	tgaggccaac	agtgtgtttc	gtcaaaagg	1260
agaaatgtcc	taccagcgga	tgagaaatcc	tggtgtccat	gtggttgatg	ccagccccctc	1320
cagagaaaag	gtcctgcaga	cagtattaag	cctaattccag	aatagtttta	gtgaaccgta	1380
gttactctgg	ccagggtcca	cgtctaacta	gattagatgt	tggttgaaac	atctacatcc	1440
accatttgtt	atgcagtgtt	cccaaatttc	tgttctacaa	gcatgttgtg	tggcagaaaa	1500
ctggagacca	ggcatcttaa	ttttacttca	gccatcgtag	cctcttctga	ctgatggacc	1560
cgatcatcaca	aagggtccctc	tcatcatggt	ccagtggag	gccagcgatt	gctttcttcc	1620
tgccatagta	aacattttct	tggaacatat	gtttcactta	atcactacca	aatatctgga	1680
agacctgtct	tactcagaca	gcaccagggt	tacagaagca	gcagacaaga	tcttcagat	1740
cagcaggag	accccgagc	ctctgttct	cctacactgg	catgctgatg	agatcgtag	1800
atgcccacat	tggtctcttc	cacatctggt	tgactcgtc	atgatgggt	cgctgcatct	1860
ccctcagtc	caaattctag	tagccaagtg	ttcctgcaga	ggctgtctat	gtgtcctggc	1920

tgcccaaggg	acactcctgc	agagccattt	ttgggtaagg	aacacttaca	aagaaggcat	1980
tgatcttgtg	tctgaggctc	agagcccttt	tgataggctt	ctgatgtcat	tcataaagac	2040
attcaagcca	agatgctcca	actgcaaata	taccaacctt	ctctgaatta	tattttgctt	2100
atttatattt	cttttctttt	tttctaaaga	attggctctg	aatagaatgc	acattttcca	2160
tctgaactgg	atgcatatca	tttagccaat	ccagtaattt	atttatatta	atctatacat	2220
aatatgtttc	ctcagcatag	gagctatgat	tcattaatta	aaagtggagt	caaaacgcta	2280
aatgcaatgt	ttgttggtga	ttttcattac	acaaacttaa	tttgtcttgt	taaataagtt	2340
caagtggatc	ttggagtggg	atttcttggg	aaattatctt	gcacttgaat	gtctcatgat	2400
tacatatgaa	atcgctttga	catatcttta	gacagaaaaa	agtagctgag	tgagggggaa	2460
attatagagc	ttgtgtgact	ttagggagta	gctgtctctt	atacacatac	tcaagccctg	2520
aagccttgca	tgctctgcag	cgctgcacta	aaggaggggg	cttttgcacc	c	2571

<210> 2  
 <211> 449  
 <212> PRT  
 <213> Homo sapiens

<400> 2

Met	Ala	Phe	Ala	Arg	Arg	Leu	Leu	Arg	Gly	Pro	Leu	Ser	Gly	Pro	Leu
1				5					10					15	
Leu	Gly	Arg	Arg	Gly	Val	Cys	Ala	Gly	Ala	Met	Ala	Pro	Pro	Cys	Arg
			20					25					30		
Phe	Val	Leu	Glu	Leu	Pro	Asp	Cys	Thr	Leu	Ala	His	Phe	Ala	Leu	Gly
		35					40					45			
Ala	Asp	Ala	Pro	Gly	Asp	Ala	Asp	Ala	Pro	Asp	Pro	Arg	Leu	Ala	Ala
	50					55					60				
Leu	Leu	Gly	Pro	Pro	Glu	Arg	Ser	Tyr	Ser	Leu	Cys	Val	Pro	Val	Thr
65					70					75				80	
Pro	Asp	Ala	Gly	Cys	Gly	Ala	Arg	Val	Arg	Ala	Ala	Arg	Leu	His	Gln
			85						90					95	
Arg	Leu	Leu	His	Gln	Leu	Arg	Arg	Gly	Pro	Phe	Gln	Arg	Cys	Gln	Leu
			100					105					110		
Leu	Arg	Leu	Leu	Cys	Tyr	Cys	Pro	Gly	Gly	Gln	Ala	Gly	Gly	Ala	Gln
	115					120					125				
Gln	Gly	Phe	Leu	Leu	Arg	Asp	Pro	Leu	Asp	Asp	Pro	Asp	Thr	Arg	Gln
	130					135					140				
Ala	Leu	Leu	Glu	Leu	Leu	Gly	Ala	Cys	Gln	Glu	Ala	Pro	Arg	Pro	His
145					150					155					160
Leu	Gly	Glu	Phe	Glu	Ala	Asp	Pro	Arg	Gly	Gln	Leu	Trp	Gln	Arg	Leu
			165						170					175	
Trp	Glu	Val	Gln	Asp	Gly	Arg	Arg	Leu	Gln	Val	Gly	Cys	Ala	Gln	Val
			180					185					190		
Val	Pro	Val	Pro	Glu	Pro	Pro	Leu	His	Pro	Val	Val	Pro	Asp	Leu	Pro
		195					200					205			
Ser	Ser	Val	Val	Phe	Pro	Asp	Arg	Glu	Ala	Ala	Arg	Ala	Val	Leu	Glu
	210				215						220				
Glu	Cys	Thr	Ser	Phe	Ile	Pro	Glu	Ala	Arg	Ala	Val	Leu	Asp	Leu	Val
225					230					235					240
Asp	Gln	Cys	Pro	Lys	Gln	Ile	Gln	Lys	Gly	Lys	Phe	Gln	Val	Val	Ala
			245						250					255	
Ile	Glu	Gly	Leu	Asp	Ala	Thr	Gly	Lys	Thr	Thr	Val	Thr	Gln	Ser	Val
			260					265					270		
Ala	Asp	Ser	Leu	Lys	Ala	Val	Leu	Lys	Ser	Pro	Pro	Ser	Cys	Ile	
		275					280					285			
Gly	Gln	Trp	Arg	Lys	Ile	Phe	Asp	Asp	Glu	Pro	Thr	Ile	Ile	Arg	Arg
	290					295					300				
Ala	Phe	Tyr	Ser	Leu	Gly	Asn	Tyr	Ile	Val	Ala	Ser	Glu	Ile	Ala	Lys
305					310					315					320
Glu	Ser	Ala	Lys	Ser	Pro	Val	Ile	Val	Asp	Arg	Tyr	Trp	His	Ser	Thr
			325						330					335	
Ala	Thr	Tyr	Ala	Ile	Ala	Thr	Glu	Val	Ser	Gly	Gly	Leu	Gln	His	Leu
			340					345					350		
Pro	Pro	Ala	His	His	Pro	Val	Tyr	Gln	Trp	Pro	Glu	Asp	Leu	Leu	Lys

355	360	365
Pro Asp Leu Ile Leu Leu Leu Thr Val Ser Pro Glu Glu Arg Leu Gln		
370	375	380
Arg Leu Gln Gly Arg Gly Met Glu Lys Thr Arg Glu Glu Ala Glu Leu		
385	390	395
Glu Ala Asn Ser Val Phe Arg Gln Lys Val Glu Met Ser Tyr Gln Arg		
	405	410
Met Glu Asn Pro Gly Cys His Val Val Asp Ala Ser Pro Ser Arg Glu		
	420	425
Lys Val Leu Gln Thr Val Leu Ser Leu Ile Gln Asn Ser Phe Ser Glu		
	435	440
		445
Pro		

<210> 3  
 <211> 20966  
 <212> DNA  
 <213> Homo sapiens

<400> 3

aaaagttagg	aagaagctgg	tcttcctact	taccctcaag	gtgctcagt	gtgggaaata	60
gactggcagc	tgactgtgga	gtgtcaaggt	ccgaggatac	aaatagcctt	ggtgggggac	120
acaggagagg	ctactaacc	agatatgtgg	ggggttatag	gctatatcat	gtcccccaaa	180
attcatgttc	aggcctagcc	cccagtgcc	cacagtatga	ctgtatttca	aaataagcct	240
ttcaataggt	gattacatta	aaatgagaac	attatgatgg	gccctaacc	aatctgactg	300
gtgtccttcc	cagaagagga	aatttggaac	ttcaaggaga	cgccaaggat	gcaagcacia	360
aggaaaggtc	ccgtgagaac	acagagagaa	ggaggcggtc	tgacgcgtag	aaagagaggc	420
ctcagaaaaa	gcaaaccctg	ctggcaactt	gatctccagc	ttctctggcc	acctgaactt	480
tgagaaaaa	aattttctat	tgtttaggcg	gccagtcctg	tggtattttg	ttatggcagc	540
caggatagac	taatacatcc	agagaggtgg	atggcatagg	gaaaagggtca	agcaggcttg	600
aggatgcagt	actgtcttag	agaagaaaag	ggagtaacta	gaagactctt	acttccatat	660
actacataca	cgtgaaacca	ccggtacatg	ctaaatgtcc	aaaagtga	ttcctgagaa	720
agaataaaaa	ctattctatt	ctcaaagagc	taaaaaattt	taaactccta	attcttcttt	780
cttcttagcc	tattaaccca	caactcaacc	acctatctat	atttcacgtt	tgtaagact	840
tttttttttc	gaattaaata	taatcccaag	tttaagtcca	atactattaa	gacataaaaa	900
aaaaaacctg	tttcagctca	tctaatgttt	tcaactcttc	tctcaattct	atttttttga	960
gagagtttcc	ctggagaata	ttatcttttt	gtttgttttt	ggtttgcttg	acatcatttt	1020
taaaaggcat	cagttaatga	gtaaacacag	aataaaatat	ccaaataact	gcgcaaacac	1080
tgttacactg	ttaggcagtt	acactgttag	gcagcaacag	tgctgatgct	ggactgtggc	1140
aggcagaggg	tgctatcctg	acacacttca	ccttagtgca	ggaaacttca	atttggtgga	1200
agaaaggcga	tttcgaggtt	ccaatctggg	cgacacttcc	cagttggaga	gtcagcaaaa	1260
gggagagggc	aattccaaga	agagggaaaa	gcttgtgcac	aggtgagtgt	gtgcaaagggt	1320
gagtggtgac	acaggtgagt	gagtgacacg	gtgagataag	atacaggaga	gggaagagcc	1380
agaactgcgc	cctgttcccg	caggaaagca	gctctgcagg	attagagggg	cggggacgcg	1440
tggtcagagc	taggagttga	ggtcggggag	ggagcccatg	gtctgcaggg	cctggtcagt	1500
catccaaggg	cagtagtgcg	cctgcaagtg	ggcgttgaag	agcccgttac	accgggaagg	1560
gacttctctg	tccctcgcgc	gtgcaccccc	gccccctccc	atgcaccccg	cataagccgc	1620
agaggaggaa	ctcaaaccag	ggtcggggcc	gccagccacc	cgagaacgc	acacggagct	1680
accttggggc	cgacggcgcg	gggcctcatt	cgggtgcagc	cccgggagcc	ggcgctggg	1740
gaccgcgcag	gcccgcggag	ccgcgcacct	ggggcccccg	ggccaagcgt	ctgctcccga	1800
gcgccggccg	tttatcgcgc	acatctcgcg	gcgaggagga	gaggccggaa	gggcgccccca	1860
gccccaaagg	tcctgccccg	cctgggcctc	cggctttcgt	ttccccgcaa	cgcttcgctt	1920
tcgtttcccg	ctggcgctcg	gtccctcccg	ggtttcggtt	cccgcggcg	cctggctccc	1980
gccaggtttc	gtttccgagg	cgggggccgag	ggcggcgtcg	ctgaggcgcc	catggccttc	2040
gcccgcgggc	tcctgcgcgg	gccactgtcg	ggcggcgtcg	tcgggcggcg	cggggtctgc	2100
gctggggcca	tggtccgcgc	gcgcgccttc	gtcctggagc	ttcccagactg	caccctggct	2160
cacttcgccc	taggcgcgca	cgcccccgcc	gacgcagacg	cccccgaccc	ccgcctggcg	2220
gcgctgctgg	ggcccccgga	gcgcagctac	tcgctgtgcg	tgcccgtgac	cccgagcgcc	2280
ggctgcgggg	cccgggtccg	ggcggcgcgg	ctgcaccagc	gcctgctgca	ccagctgcgc	2340
cgcgggccct	tccagcggtg	ccagctgtct	aggctgtctt	gctactgccc	ggcgggccag	2400
gcggcgggcg	cacagcaagg	cttctgtctg	cgcgaccccc	tggtatgacc	tgacacccgg	2460
caagcgctgc	tcgagctgct	gggcgcctgc	caggaggcac	cacgcccgca	cttgggcgag	2520
ttcgaggccg	accgcgcgcg	ccagctgtgg	cagcgcctct	gggaggtgca	agacggcagg	2580

cggtgcag	tggtgcgc	acaggtcgtg	cccggtcccg	agcccccgct	gcaccccggtg	2640
gtgccagact	tgcccagttc	cggtgtcttc	ccggaccggg	aagcccgccg	ggccggtttg	2700
gaggaggtaa	gagttctgtc	cgcttccagc	tcccagcggtg	gcactctgaac	ccttcagacc	2760
agagaactgg	accaagaggc	tggtctgttaa	agccggttct	tgccctgggtg	gtttgtttat	2820
ttccgttcac	aaatcaggtta	gggaaggtgt	cctgtatgcc	aggcaactct	tttaagattc	2880
ttgtttgcaa	ggatcttcca	acctgacgtg	gaacatagac	ctacaccaag	ccacgcgatg	2940
cttgctgtaa	aagcatccca	acagcagtac	agagggagta	aaggggctgc	cgggagtgag	3000
ggaaaataat	gtcagctggg	aagtaatttt	atgtgctgat	gatcaccatt	caaggatcct	3060
gggggtgaaaa	agaaaatgca	tgagtttagg	gggtttaaga	aatttagact	taaatagtgt	3120
ttacctaccg	actggccatg	aaccttggtc	aggttactca	actactctaa	gttttgcctt	3180
ttgacatgta	caattcccat	cttgcgatgt	tgctctgatt	aaggaaacat	ctgactcaca	3240
gcaggtaccc	acagaaagag	actgaaaatt	ctttctgata	gcaggctagg	cagatgtcct	3300
cctgtgacac	agatgagccc	tgaggatgcc	cccatggatc	ttgggaatat	tttccaagct	3360
tacgggacag	cggtgtggag	cagtttaagag	tgcaaggtca	accacgtgta	tttaaattta	3420
aactctggca	tttatttagct	gtgtcacttt	gagcaagttt	cttcaactct	ctgcctcagt	3480
ttccttaatt	catatggtgg	gaataataat	agcaccctcc	ccaccctcag	tcacagagat	3540
tgccaactga	atacttgtaa	agcacttaga	agattgccat	gctcagagca	agcacataag	3600
tgtctgagcc	tcgctctgag	atgctgtgag	cgtgcagtg	gataatgcac	attgaggaac	3660
tggaattcc	cagggggacg	ctgctctgcc	agcttcatga	ttgcagtgt	tggtgtttta	3720
tctcagcccc	ctgaatggct	aggagaggac	atgctgcaga	tgaagactgc	tctctccagc	3780
ccactgtgca	gctgatttcc	cattcttgtg	acacagtggt	cccagcgggc	ctgtagtctc	3840
atggttgccg	tgctcacagga	cattgtgatg	atgtgccttg	cctggccttt	ctcaaagctg	3900
ctcagtgaag	gctgcaggcc	accaagcgat	ccagacagg	acagctgttt	cgagccttgg	3960
ctgctcaata	taaaataaaa	tactccagtc	catcctagca	tcgaaatact	ctgaattccc	4020
atggcctggc	acagtgtctca	gtataactta	ggccttatta	gcatgcggca	atattgtgct	4080
cagcaattta	ggtgtgattt	ctgcaaaagc	cccctggctt	cattgtgtgt	ggatagacgt	4140
tgttttacag	tgtacctcct	ttattcctga	agcccgggca	gtgcttgacc	tggtcgacca	4200
gtgccccaaa	cagatccaga	aaggaaagtt	ccaggttgtt	gccatcgaag	gactggatgc	4260
cacgggtgaag	ataattattac	cttttagtta	taggcaatga	cactaactga	ttagtgcag	4320
aaacggcaat	acttctgca	aaaccaaact	ttatgtggag	ccttatgtgt	gcccctactg	4380
tgtggcaggc	cctgtgctag	gcaggccctg	ggatgcagag	atgaataaga	ccttcaatat	4440
gaagcagcat	gatgtgtggg	cgcggtacct	cagtgtctctg	gcggaacaca	ggaagggcac	4500
tgaatctggc	ctctgtgggg	ctttgtcggg	tggaagtgc	ggtcaagggt	gatacctgga	4560
ttgtatttta	agtacagata	ggagttggtc	aggtgatgaa	agcaggtaac	atcctccaga	4620
cagaagaaat	agcctgggca	aaggtgcagg	ggcttgaaac	aggggtggtg	gtccaggaac	4680
cacaggcaat	tcagagattc	ttctggagca	aaatgtggaa	gaactaggaa	atggaagaaa	4740
aaaaagcctt	ctgagctgtc	aaactgaggt	caaaatataa	tgtgtgtctca	catgagacca	4800
aagtacaaaa	ggggcagaca	tgtgtctcct	gtggcccagg	acacactgag	gagaggggtg	4860
atgttgagga	actagcatcc	gagtggttca	gcgtaggagt	ttctcctcct	gtgtaactt	4920
gaggggtaca	gacttttaat	aatataaaaag	gcaatttcca	tatagaggta	cttgtgaacc	4980
cagctaggga	gatgtggcac	aggtgatggc	ccatgttgac	catcctggct	ccatgtgaag	5040
gagcgggcca	tgctcctggc	ttcagggaga	ccagctgtca	tcactcaaat	gtactggccg	5100
tgtccaggac	ccatcacagt	ttctttcagc	tgcagaggga	attgtaaacac	catcaatcct	5160
tcagctgatg	tgttttgttg	atcattttatt	ttgtaccac	agctaattta	gatttgggtg	5220
gattacagga	gacataaaaa	ttcagcctca	acacaagcat	ccacacatac	aaatgttaca	5280
aggagttagc	atagagtggc	agaaagaaca	caggctagt	gttccgtctg	ccctgcattt	5340
gcactcctga	ccaaggccta	tcaggagggt	gagtttgggt	aaattttatta	acttctccag	5400
tgctcaattt	cttcttctgt	cagatgatta	aataataact	gttttgcaga	gtcactggga	5460
gaattaggag	tataactgtc	tgagtacttg	gctcctagca	gacactgaga	aatggtagct	5520
actgttaggg	tcgctcctga	caacctaaaga	aaaaaagaaa	atagatagtt	ggcaataaag	5580
tgtaagtgt	gtgatagaga	aacttaaaaa	taaatcgaaa	cagtaggagc	tcagagaaac	5640
tagtgcacag	tggtctggag	tagatcttct	catcaccacc	tgctcctgagc	tccaggcagc	5700
agctgagaat	tgtagatgg	gctctgggaa	gggactaatc	tgctacccga	ggctgtgcaa	5760
gggggagtca	gaaagtcaat	gaggcctaag	cagtgccttt	gaggagaaag	ctgaagccta	5820
aagcagatac	aaaagctcta	aaggccaagg	ccaagcccaa	aggggcaagc	acaggagtga	5880
gtggtagaac	cagggctgga	aattggaaag	ggattgcaca	gaagtgggaag	cagggtatga	5940
agaaggtaga	aagagaggag	gggcgagaag	agttgctgtg	gatgccaggt	gtgggttcac	6000
caactataga	caataagagg	agagaaagtc	ttctgggttg	gggacatggt	aagagggtga	6060
gcagtagctg	ggctgccggg	aataaaaagtc	acacgtaaaa	ggggctcttg	tgtctagact	6120
cccaatatca	gatttgatca	ctaaccagaa	tttttctctc	gggtttccta	ataccacacg	6180
gagaaatcct	aacttctat	gggtctacag	ctttttataa	agaatcctgt	tatttagtct	6240
actcaatttca	tttgagttt	gagagaacgt	ctgtgctctt	tctacgtcaa	tgtaactttt	6300
ggggctgtgg	ttaagatgta	tatattttgt	gtatgacctg	caggtaaaac	cacggtgacc	6360

cagtcagtg	cagattcact	taaggctgtc	ctcttaaagt	caccaccctc	ttgcattggc	6420
cagtgaggga	agatctttga	tgatgaacca	actatcatta	gaagagcttt	ttactctttg	6480
ggcaattata	ttgtggcctc	cgaaatagct	aaagaatctg	ccaaatctcc	tgtgattgta	6540
gacaggtagg	tataaagatg	ccttgaatta	ggcattttct	ccctaataata	taagtgtgtg	6600
tgtgtgtgtg	tgtgtgtgtg	tgtatacgtg	catgtatatg	ccaggaaaaa	aattgtgttt	6660
aagtcaaact	gttattatga	taataatagg	aattctcctt	atgaattgtt	aattacctat	6720
accaggcatg	gcatttgcta	gagaattaca	tatataatac	tagtatctgg	aactataact	6780
tgggtagggt	aatgtttacat	gttattccca	gtttactgat	gagaactata	gatctcagaa	6840
aggtaaaata	acttgccaag	gtaagctgga	aatagcatac	cggggacatt	aatgagctca	6900
tactttcagt	catttatattg	ttcattggct	tattcaacaa	atacttactg	gacacctcct	6960
gtgtgccaaa	gactagtctc	aatttagagg	attcaatgat	aaaccagtgt	attagtccat	7020
tttcatgctg	ctgataaaga	cataccggag	attcggcaat	ttacaaaaga	gagcagttta	7080
atggacttac	agttccatgg	ggctggggag	gcctcacaa	catgggtgga	ggtacaaaagc	7140
atgtctcaca	tggcggcaga	caagagtaga	gagcatgtgc	agggaaactc	ccctttttaa	7200
aatcatcaga	ccttgtgaga	cttattcaca	atcatgagaa	cagcatggta	aagacctgtc	7260
cccattgagc	aattacctcc	cactgggtcc	ttcccacaac	acatgggaat	tcaagatgag	7320
atgtgggtgg	ggacacagcc	aaaccatata	actccactcc	tggcctctcc	caaactctcat	7380
gtcctcacat	ttcaaaaacca	atcatgcctt	accaacagtc	ccacaactct	taactcattt	7440
cagcattaac	tcaaaaagtc	acagccaaag	tctcatctga	gacaaggtaa	gtctcttcca	7500
cctatgagcc	tgtaaaatca	aaagcaagtt	agttatattc	tagatacagt	gaggctacag	7560
gcattgggta	aatacagcca	ttacaaatga	gagaaattga	ccaaaacaaa	ggggctacag	7620
gtccatgca	agtcgaaat	tcagctgggc	agtcgaatct	taaagctcca	aaattatctc	7680
ctttgactct	atttctcatg	tccagatcat	gctgatgcaa	gaggtgggtc	ctcatggtct	7740
tggacagctc	catccctgtg	gctttgcagg	gtatagcccc	cctccttgct	gctttcacag	7800
gctggtgttg	tctgcagctt	ttccaggtgc	atgggtgcaag	ctgtcagtgg	atctaccatt	7860
ctggggctcta	gtggacagtg	gctctcttca	aacagctccg	ctaggtagtg	ccccagtagg	7920
gactctgtgt	tggggctcca	acccacatt	tcccttccac	actgccctag	cagaggttct	7980
ccatgagagc	cccactctg	tagcaaaact	ctgcctggac	atccaggcat	ttccatacat	8040
cctctgaaat	ctaggcggag	gttcccaaac	ctccattctt	gacttctgtg	tacctgtagg	8100
ctcaacacca	catggaagct	gccgaggctt	ggggctttcc	ccctctgaat	caagagcctg	8160
agctgtacct	tggcctctta	ctcaaggcta	gagtggctgg	gacacagggc	accaagtctc	8220
taggctgcac	agagcagagg	gaccctgggt	ccacaaaacc	atTTTTTtcc	ttctaaacct	8280
ctgggtctgt	gatgggaggg	gcagcagcag	aggtctctga	catgccctcg	agacattttc	8340
cccattgtct	tgggtgattaa	catttggtct	ctcatgtctt	atgcaaaact	ctgcagccag	8400
cttgaatttc	tcctcagaaa	atgggatttt	cttttctgtc	acattgtcag	gctgcaaatc	8460
ttccaaaact	ttatgtctctg	tttccatttt	aaaaccgaat	acctttaaca	gcatccaaat	8520
cacctcttga	atgctttgtct	gcttagaaat	ttcttccacc	agttacccta	aattattctc	8580
tcaagttcaa	agttccacaa	atctctaggg	caagggtctaa	atgccgccag	tctctttgtc	8640
aaagcataac	aagagttacc	tttgctccag	ttctcaccac	gttccctcatt	tccatctgag	8700
accacctcag	cctggatttc	attgtccata	tcattatcag	catttttggtc	aaagccattg	8760
aacaaatctc	tagggagttc	aacctttccc	acattttcct	gtcttcttct	aagccctcca	8820
gactctgtca	acctctgtct	attaccagct	tccaaagtgt	cttccacatt	tttgggtatc	8880
ttttcagcag	cacccactt	ctgggtaccaa	tttactgtac	tggttcattt	tcacactgct	8940
gataaagacg	tacacgagac	tgggcaattt	acaaaagaaa	gaggtttaat	ggattttacag	9000
ttccatgtcg	ctgaggaggt	ctcacagtca	tgggtggaagt	tacggcacat	ctcacatggc	9060
agcagacaag	agtagagagc	ttgtgtaggg	aaactcccct	ttttaaaacc	atcagatctt	9120
gtgagactta	gtcactatca	tgagaacagc	atgggaaaaga	cctgcccctg	tgattcaatt	9180
acctcccact	gggtccctcc	aacaacatgt	gggaattcaa	gatgagattt	gagtgggatc	9240
acagccaaac	catatcaatg	agatagataa	gtccctattt	tcatggagca	aacttaacat	9300
tataggagaa	gaaaagtatc	aggtgaacaa	atacataaaa	taatacataa	gatgaggtaa	9360
gataatatca	aagcatgata	aatgcaggga	agaggaaaaa	tcaaagtaat	gtgctaaaaa	9420
acggctaacc	ctccactaga	tatggtttag	gaaggcctgt	ctgagaaaagc	accatttagtc	9480
agagccctga	tttaaaaaaa	aaaaaggcaa	atgtgaaaat	tcccgggtta	acagaaagca	9540
ctgtggagaa	agaaatctgc	aagaatgaag	ctaagactga	aataagctaa	catatctgac	9600
aactgaaaaa	tggtatatgt	tctgagaaca	tagtagatgt	ggaggtgctt	tgtggatgaa	9660
tgggaagagg	aagggtgggg	cagggtctgta	gggctttag	gccattcata	gaatggattt	9720
tattctgagt	gcactgggga	gccattggaa	tgtttctgat	aaaggagaga	cataaactga	9780
tttatacttt	aaaaattcac	ctgtaagaaa	tagcttctact	ttgggaggct	gaggtgggctg	9840
gatcatgagg	tcaggagatc	gagaccatcc	tggctaacac	ggtgaaaccc	cgtctctact	9900
aaaaatgcaa	aaaattagcc	gggcgagggtg	gtgggcactt	gtagtcccag	ctactcggga	9960
ggctgaggga	ggagaatggc	atgaacccca	gggggtggag	cctgcagtga	gccgagatca	10020
tgccactgca	ctccagcctg	ggcgacagcg	agactccgtc	tcaaaaaaaa	aaaaaaaaaga	10080
aaagaaaaga	aatagcttta	ggtcagggtgc	agtggtctcac	acctgtaatc	caagcacttt	10140

ggaaggctga	ggtgggaaga	gtgcttgagc	ccaagagttc	aagaccagcc	ttgataacat	10200
agtgaagac	tgtctctaca	aaaaatattt	aaaaaaatag	ctgggtatgg	tggcaccac	10260
ttgtagctcc	agctacttag	gagactcagg	aaggagaatc	ccttaagccc	aggaggtcga	10320
ggctgcaatg	acaaagcaag	aggatgacac	agcaagaggg	gccttgcttc	aaaaaaaaaa	10380
aaaaaatccc	aaaaacaata	aaacaaaaaa	caaaaaagaa	gaaaaaaata	gctttaaaaa	10440
tactataaga	aagaggaaag	gatatgacaa	gcaggtcata	ctgaacttac	atcacgatga	10500
caaattggatg	agaagattat	agtcaccatg	agattccatt	ttactcccat	ctggatttca	10560
ttttactccc	ctccagttgg	tgaaactact	ataactaaag	gtttcttcat	atgatattga	10620
tcaatagaaa	ctctcatatg	atgctagtca	gaacatatca	tatgatagta	gcataatcac	10680
ttagagagca	gtttgaaaag	atgtagcaaa	gtggaagatt	gctcctgcct	actgaagaaa	10740
cactcacaaa	agtttctttc	agcttccttc	atactgttgc	aaaatttgaa	aaacctaaag	10800
cccatcaaca	ggagaaagca	taaataaata	ccagcatatg	tataaggtgg	aaaaccatac	10860
agcagcagtg	taaatatgtt	gtgcaatgca	tgagggcaca	cacattacaa	aaccgtaatg	10920
ttgaatgaaa	atgtcaagtt	gccaaaagat	gtttattcag	tagaatacat	gcagttatcc	10980
atactgcaaa	gagtagagag	atgaaaggat	gttgaacagc	agatttaaga	aagttgttct	11040
ctgggaagta	gagataaaatg	tggttgataa	ggagatcaga	aggactttga	ttgtgattgg	11100
attatttctt	aacatttctt	gaatgttcat	tttctccaaa	gatttactta	tttttgtaaa	11160
cataagcaat	tgcatttaag	tatggcatag	ttggtaaaaga	acattaatca	taaatgtaaa	11220
tctcaaggaa	tttcaagaag	tgaacacagt	caagtcacct	gtaccagat	caagaatgag	11280
agcctgccac	agccccctaca	ccccctgttct	gccccacccc	agtcactgcc	catttctctc	11340
ccaggggtag	caactgtccc	aactgccata	gccatatatt	agttctgcct	gttctttaa	11400
tgctcataga	tgcactatt	tggttaggtat	ggagttttat	ttgcacctga	cttctttcat	11460
accacatgtg	tttgaagat	ttgcttgtgt	tggttgtaac	taaattttat	gcatttttgg	11520
tgcacatatg	gatgcagttc	tggtacatag	gttcccagga	gcagaactgc	aggggcatgg	11580
ggtttgtggc	tggttcaggtt	tggtagatgt	tgcaaaaagt	attctaaaga	ggttgaaaga	11640
atggttgagtc	tcctcccctc	cccacagcag	tatttgccaa	ttccctgtga	ctaacagccc	11700
tggtgacatt	agtattacca	ggctttaatt	ttgactcctc	tagtttttcc	acttgttcct	11760
ggtgggtaag	ctgggtcactg	aaaagctgat	ttgtcctatc	tggaacacaga	actactactc	11820
ctttcttgaa	agtatatctt	tttctgtaca	tttctctgta	tgtctgaaat	attccatcaa	11880
gagaccaccc	tgactgtatg	tggagaataa	agtgtgtggt	gggggagggg	caagaaagga	11940
aaaagaatca	gctagaaggc	tggtggctgca	gtctaggctg	tgatggccct	tgagtagttt	12000
taatcctggg	atgacaatag	ggatggcaat	ggggataaca	ataataattt	caaggttggc	12060
aagttacatg	gaatcttagg	atgaactgag	aaggatacga	aatcttgttc	ctttatggga	12120
aggttttgcc	tggaatgt	ttttgcccta	ttgttaacat	gcccgatgtt	atcatatgtg	12180
atatctgtat	tagttctttc	tcacactgct	ataaagacgt	acctgatact	gggtaatcta	12240
taaagaaaag	aggttttagtt	gactgacaat	ctcgtatggc	tatacgggag	gcattggctgg	12300
ggaggcctca	ggaaacttgc	aatcatgggt	gaaattgaag	aggaaacaat	ggcaacagga	12360
gagagagaga	gagaggcagg	ggcaggggca	ggggcagagg	cgagagagca	gggggaagtg	12420
ctacacatct	taaacaccca	gatctcatga	caactcacca	tcacgagaac	agcaaggggg	12480
gtgtctgccc	ccatgatcca	atcaactccc	acagggcctc	atctccaaca	atgggaatta	12540
ttaggttggt	gcaaaaagtca	ttgtggtttt	tgatattatt	attaatggca	aaaaccgcaa	12600
tgacttttgc	accaacctaa	taccttttgg	catgagattt	tggtggggac	aaagaaccaa	12660
accatattga	catctttttt	gatacagtc	cctttatttc	caagagaaaag	actaaggttt	12720
tcctagtagg	gtatgacttt	cgagggtccat	tatgtcctag	gatgcctgcg	gatcctgaag	12780
cagcactggc	cactgtgtgc	aggcagggat	ttctgcactc	tgtccccag	ttttctgatc	12840
tggttaagtgg	ggatactcat	gcccccttcc	ctgcctactg	tcaagagtgg	tgatgatgat	12900
tcagtgaagt	gatgtgtgtg	gaagtacctt	gaaaatagga	aattgtctatt	aaaatataaa	12960
gcattattat	atgagcagtg	tataatgtgt	tggcaaatg	cttttgattt	gaactaatgt	13020
ggcttccctg	atagcaggag	tggagaatac	tgaatagtgg	gaagcatctg	aaattgatgg	13080
gctaagggtg	caattattta	aaacaagcag	ccgtattttc	aatgggagaa	ctctatagga	13140
aacaggctct	taattcttcc	cttgatttgt	cttctttgtg	tgtgtgaatt	gcctgcaatt	13200
tagttcttta	aagaaatgct	gtatcacctt	gtcagatgaa	aagaaaagag	cagttatttg	13260
ttgtctttgt	ggattttatt	catgttttaa	gatttttaata	aaatccattt	tagacagtac	13320
cattatctaa	ctgaaaaata	tgagagacag	taatttttaa	cggggactgt	ggtttaaggtt	13380
ggagtcttaa	tcacccatt	accttttaaa	atctattctt	gctgggtgatt	ttctacaa	13440
aaagaagact	ttaaaaataa	gataatatca	gactctatat	tcataaggtag	gtattttaatt	13500
caatgaatct	ggagcatgtg	ctgaccatgg	tgtaaattat	agtttaagta	ccagaaaaag	13560
aaaactgaga	ccctaattgg	ctttttttga	gcttgaggga	caaaattcat	ctggcagaga	13620
gagtgaagt	acaagtttgt	gagtaacagg	agttgggtga	gtaacacata	ggaagggtgc	13680
caggcagaat	tcacaggagc	tggcagtggc	ctgaagctct	cagagcacac	ttttggaggt	13740
gaacaagggc	tttgaaggat	ggatgggtgt	gagatttatca	actcccaagt	gaatttttct	13800
tttttttttt	tagatgaagt	ctcgctctgt	tgcccaggct	ggagtgcagt	ggcgcgatct	13860
cggcacactg	caagctctgc	cttccgggtt	cacgccattc	tctgcctca	gcctcccag	13920

tagctgggac	tacaggtgcc	cgccaccacg	cccggtcta	tttttgata	tttagtaaag	13980
acgggggttc	accatgttag	ccaggatggg	ctcgatctcc	tgacctcgtg	atccaccac	14040
ctcagcctcc	caaccaagtg	aattttttac	ttgtgtcctt	ttcagtgtg	tcctgtgttc	14100
tgttatcata	atttgcaatg	atccggcttt	agttataacc	agtgtctgat	aagaattaga	14160
tatttatctt	atagtaacag	tgtgatacag	ttttttttaa	gcacttgtct	gtatttgtaa	14220
caactatgga	aggaaaacaa	accttgcatg	atctgtgttt	tccagatgag	gagatggagg	14280
ctatattagc	ttagatgact	tttacctaca	tgtacaaaac	agggtggggcg	ggggacacag	14340
gcagaataat	gtacagttca	ggtaacacag	ggaattttat	atgtggatag	caactgtgtac	14400
ttttcactgt	ggagaggagt	tcaatttctaa	aatgatcaaa	attttaggat	tttaaagaat	14460
tgggcccggg	atggtacctc	acgcctgtaa	ttccagcact	ttgagaggcc	aaggcgggtg	14520
gatcacctga	ggtcaggagt	ttgagaccag	cctggccaac	atgatgaaac	cccatctcta	14580
ttaaaaatac	aaaaattagc	cgggcgtggg	gggtgcatgcc	tgtaatccca	gctacttggg	14640
aggggtgggg	aggagaaatg	cttgaacctg	ggaagcaaa	gttgcatgta	gctgagatcg	14700
tgccactgca	ctccagcctg	ggcaacagag	tgagactcca	cctcaaaaaca	aaaataaagg	14760
attgaagggtg	gtaatttgaa	agtacaaatg	aggagggggc	cctgggtatc	tctacgttgg	14820
aatgtttata	tcataaatata	ttattgtgag	tgatggctct	tttatattgg	atctgaattg	14880
tccatttagt	cctttaaaat	tgggaagatg	catgaacagg	gcaagagtat	aataaaactat	14940
gctgataaat	gaaatcgttc	taattcattt	attcattttat	acacccaaat	aacatttcttt	15000
cattgcatat	ctattatgtg	ccagacatgc	attactaaaa	aagatttccc	actcaagaaa	15060
ttacctaatg	gaggagacaa	tagatattac	acttataaca	agtagttctg	atgtgcaatg	15120
aggagttttt	cagtagagtc	acgtagaaa	ggtttttgaga	gcacagagga	gaaaacagtc	15180
aattctgttt	gggggcttcc	taggagtcct	aagggagagg	agagttttgc	tggtctgagaa	15240
ctcactcttc	accagaggaa	aaggtaagca	gtgtcagact	aggagggatg	ttctgtgtct	15300
taccagaaga	ccaagcattt	cctgtagggt	gtaggaagcc	actaggcatt	tttaaataga	15360
gactgatttg	acttttgtgt	atggtaataa	ctttgttttc	ctcccccaaa	atcacttttt	15420
aaaacagcca	gcagaaggag	cgactgactt	gcttagggag	gactttcatg	gagctgggca	15480
gggcatattt	gtctccctgt	ctcatactga	ggcaccatca	gcagactgga	tagttgggag	15540
aaacaaagag	gcttctacct	caggggtccc	agaattgtgaa	tttcattggc	aagttcaagt	15600
gaaaacagtg	taggaactga	catggccttt	ccaggtattt	agtctgccaa	gacacagccc	15660
ttaaatacaa	atgaactgcc	aaacagggtc	attgtcccct	gtcacccctc	attccttcat	15720
agaggaatgc	ggacagcagg	acaaaaaaga	tgtgatgaca	gaggggaggc	cacactaaat	15780
ggtagtttga	gatgggtcaa	tggagctgtg	tgaagaacac	actgcattat	tactgttgtc	15840
aattttatatt	tttaaacaat	attgtataac	tttttttagt	ttataaaaatt	taattttatt	15900
taacttatgc	aataactagaa	aaacttctgt	agagccaacc	ctggtttcat	cattcctggc	15960
tgtctgattt	cagatgctac	tttgacttct	tctgcagaca	gagaactcac	tacccacttc	16020
cttctcaggt	actggcacag	cacggccacc	tatgccatag	ccactgaggt	gagtgggggt	16080
ctccagcacc	tgcccccagc	ccatcacccct	gtgtaccagt	ggccagagga	cctgctcaaa	16140
cctgacctta	tctgtctgct	cactgtgagt	cctgaggaga	ggttgcagag	gctgcagggc	16200
cggggcatgg	agaagaccag	ggaagaagca	gaacttgagg	ccaacagtgt	gtttcgtcaa	16260
aagtaggtgt	cccagtgcaa	tgcaatgtga	gcggcaggca	ttcctgaagg	gagatgaacc	16320
actggcactg	gcttttaggat	tgtgaggaag	tgatattgtt	tccagttttc	aaacacaaga	16380
gacaacatcc	tctaagttac	ttcagcccct	tccaattggc	ttgtcaccac	agggctcgag	16440
cattgttatc	ttaaagcaaa	ggtcactcga	ctagggatca	gaccctgcc	ctgatcctgg	16500
ctgtgctagg	agcagctgca	cctgggtaag	acagtaagt	tctctgtgcc	tcagtttccc	16560
cagtcatagt	ataatcacac	agagcactag	ataacgagct	catagtaaca	tctacctatt	16620
agatgcttcc	cgtgtgtcag	gcattttact	gatgtttatg	catccttgtg	agggaaaacat	16680
tagccgtatt	ttacagttta	caactttaag	gctcaaagga	ttaagtgatt	tgtctaaatg	16740
tacataacta	ttcactagta	aaaccgggat	taaaattctt	ctgattttgc	agccagtgtt	16800
tttgttttta	ttagaaagtt	ataaacacga	ctgcagaaga	gagtcctggc	aggcctcctg	16860
cctcatgact	gagtatgaat	cagttctaca	ccactgcctt	taaaaactga	agcagaaata	16920
ttttctctaa	ctgaacaatg	atagccctgt	tatcataaca	tagtaatgtt	ataaataatg	16980
gtagctgctg	tgggttaaaga	tattatgtta	agcaattttac	ttgtattaat	tccattaaac	17040
ttcagtgaac	atttgcaagg	aaggtagcgt	ttcagtcctc	attttgcaga	acaggaaact	17100
gagacacaga	gaggagaaga	gatttgacca	attcacttgg	ctaggaagtg	gtcaggcaga	17160
gttgtgaatg	cagacgatcc	acctcgacac	ccctatttta	accacagtgc	tataaggatt	17220
ccataaagaa	acaggcacta	gtcactctgt	atacacatga	aggctagcta	gcatggaaag	17280
gatatgtaga	tttctggcaa	aatatttagaa	gagtcccatg	catatatata	ggactgtggc	17340
ttgtatgaaa	attattcagg	gcacagactt	gggggaaatt	tgccactgaa	caaattacct	17400
aaattctttg	agcttcagtt	gccttctctg	caaaacaggg	atgacaatag	tcttccctcc	17460
taaggttact	ttgagaatta	aatgagaaaa	atcatgcaaa	atgctaattg	ttggcagaaa	17520
acaggttatt	aacaagtgtc	agctattata	cattattatt	catttattat	ttgttaaaaa	17580
aaatgcatga	acgtcttctg	tgggcaaaag	tagttacagt	gagataaatg	acatgggaag	17640
cttgcttcaa	gctattttata	ctatggtagg	aaaagaacat	taatgcaaat	agctgtgtga	17700

aaaagtagac	caactccttg	tgttttgcct	gtccccaggg	tagaaatgtc	ctaccagcgg	17760
atggagaatc	ctggctgcca	tggtggtgat	gccagcccct	ccagagaaaa	ggctcctgcag	17820
acggtattaa	gcctaatacca	gaatagtttt	agtgaaccgt	agttactctg	gccagggtgcc	17880
acgtctaact	agattagatg	ttgtttgaaa	catctacatc	caccatttgt	tatgcagtgt	17940
tcccaaattt	ctgttctaca	agcatgttgt	gtggcagaaa	actggagacc	aggcatctta	18000
atcttacttc	agccatcgta	ccctctttct	gactgatgga	cccgtcatca	caaaggtccc	18060
tctcatcatg	ttccagtgag	aggccagcga	ttgctttctt	cctggcatag	taaacatttt	18120
cttggaacat	atgtttcact	taatcactac	caaatatctg	gaagacctgt	cttactcaga	18180
cagcaccagg	tgtacagaag	cagcagacaa	gatcttccag	atcagcaggg	agaccccgga	18240
gcctctgctt	ctcctacact	ggcatgctga	tgagatcggt	acatgcccac	attggcttct	18300
tccacatctg	gttgactcgt	tcatgatggg	ctcgctgcat	ctccctcagt	cccaaattct	18360
agagccaagt	gttctctcag	aggctgtcta	tggtgctctg	ctgcccaggg	acactcctgc	18420
agagccattt	ttgggtaagg	aacacttaca	aagaaggcat	tgatcttgtg	tctgaggctc	18480
agagcccctt	tgataggctt	ctgagtcata	tataaagaca	ttcaagccaa	gatgctccaa	18540
ctgcaaatat	accaaccttc	tctgaattat	atcttgcctt	tttatatttc	ttttcttttt	18600
ttctaaagta	tggctctgaa	tagaatgcac	atcttccatt	gaactggatg	catttcattt	18660
agccaatcca	gtaatttatt	tatatataat	tatacataat	atgtttcctc	agcataggag	18720
ctatgattca	ttaattaaaa	gtggagtcaa	aacgctaaat	gcaatgtttg	ttgtgtattt	18780
tcattacaca	aacttaattt	gtcttggtta	ataagtacag	tggatcttgg	agtgggattt	18840
cttggtaaat	tatcttgcac	ttgaatgtct	catgattaca	tatgaaatcg	ctttgacata	18900
tcttttagaca	gaaaaaagta	gctgagtgag	ggggaaatta	tagagctgtg	tgacttttagg	18960
gagtaggttg	aaccagggtg	ttacctaata	ttccttccag	ttcaaaggca	gataaatctg	19020
taattatttt	tatcctatct	accatttctt	aagaagacat	tactccaaaa	taattaaatt	19080
taaggcttta	tcagggtctgc	atatagaatc	ttaaattcta	ataaagtctt	atgttaattg	19140
cataggattt	ttaaaagagc	tataggtaat	ttctgtataa	tatgtgtata	ttaaaatgta	19200
attgatttca	gttgaaaagta	ttttaaagct	gataaatagc	attagggttc	tttgcaatgt	19260
ggatatctagc	tgtattattg	gttttattta	ctttaaacat	tttgaaaagc	ttatactggc	19320
agcctagaaa	aacaaacaat	taatgtatct	ttatgtccct	ggcacatgaa	taaactttgc	19380
tgtgttttac	taacttatgc	tgctatcctg	ggatcatatt	gatttgcctg	aaaagtgcct	19440
tctcagattc	cccttttaat	attgtgatgt	aaggagggtg	aattttggta	aaggaaattg	19500
aaagggtgtg	gctggcaggc	taagtggat	ttgtggctag	agtgccttca	gagaaagggg	19560
agggtctattg	ttttatttta	catatcattt	cctcattaca	aatattaaag	acatttttgta	19620
attcattctt	tttacacctg	gactttttat	atactgatag	gtatatatga	cttacgagta	19680
ttttgtaaaa	tagcacctcc	taccctaata	ctgatggcaa	gtaacccttt	gcttggtctt	19740
gctcattgca	agacgagctt	tggttttggt	cctgtgatag	accattagtt	accccaaaat	19800
ttattcttcc	ttcttcccat	ggtaagttaa	tatttgactt	ggatcatggg	tgccaataat	19860
tcctagtgtca	tttccaaggc	tcctttaaca	gctggagggtg	ggcgactggc	tagtttcttg	19920
ccaatagtat	gtgagcagaa	ggaatacctg	aaatgtcaag	gggatattat	cactttcccc	19980
tttaactctt	catatcggct	gtattcagag	gtgatagcca	tctaaggacc	aagagatgag	20040
gatgacacta	aaaggaatta	gcttgccctt	ggtaaatagc	aagggaaggg	tccccagaga	20100
gccctcgggc	caccagtcag	tgccctcccc	cacataatgt	aaaaagcagc	ctggggaaaa	20160
aatcaagctg	caggactgca	taagggaact	agcacagggt	gttgtgcctg	gagacatgcc	20220
tacggctgtca	cagataggag	agcctctggc	ccattcagat	aaaagcttgc	acaaacctct	20280
ggctcactca	gatgagggaa	caagtcctgg	cataaaaaaca	cctttgtcct	ttgtatagtc	20340
agcaggctcc	caggaaaaag	tttttttctc	cttttgtggg	cgtgggcaca	gtgggctcca	20400
gttagttcca	gtgggcactt	tccttgccag	tttttggact	gtgagctctg	cctctgtgaa	20460
tcataacttc	agccccctgat	tggtcccagg	caaaggctct	aggccaggct	ttctgattgg	20520
tcctggggca	gggtgcctgg	ccaagctgag	tcattgccctt	tccaagacag	cgggtagact	20580
aagcacaattc	attccccctt	ccagcccgtg	aaaccccac	aactggcctc	atagtgggca	20640
ccccattaga	gctccccctt	ctgctggcag	agagctttct	tttttcgctt	attaaagtgt	20700
cactccaact	tcacccttgt	tgtctgcact	ccttaattctt	cttggaatta	ggacaaagaa	20760
ctctggatat	tatctcagac	aacgggagac	tggtacatct	tggtgcattg	gtaagattac	20820
aacacatttt	ggtgcattgg	ctgggaagaa	gggaattcat	cagaaggatg	attaagagtt	20880
gacctttaac	tttcaccttt	acttgcattt	ctgaggcttc	ttgtctattc	cagtctagtt	20940
tgctttcaca	gagggcctag	ccatca				20966

<210> 4

<211> 508

<212> PRT

<213> Homo sapiens

<400> 4

Glu Cys Thr Ser Phe Ile Pro Glu Ala Arg Ala Val Leu Asp Leu Val



